SONY

3-263-271-12 (1)

Stereo Power Amplifier

Operating Instructions

Mode d'emploi

Owner's Record

The model and serial numbers are located on the bottom of the unit.
Record the serial number in the space provided below.
Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. XM-2100GTX Serial No. _____

XM-2100GTX

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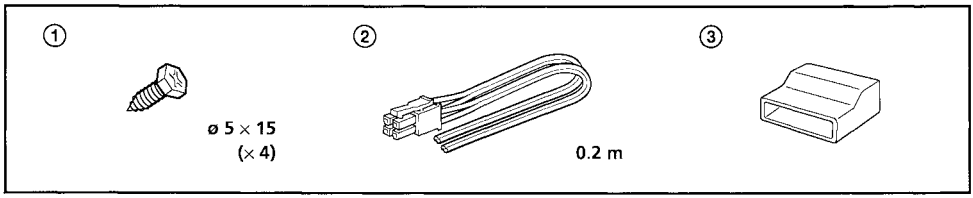
Parts for Installation and Connections
Pièces destinées à l'installation et aux raccordements



Installation

Before Installation

- Mount the unit either inside the trunk or under a seat.
- Choose the mounting location carefully so the unit will not interfere with the normal movements of the driver and it will not be exposed to direct sunlight or hot air from the heater.
- Do not install the unit under the floor carpet, where the heat dissipation from the unit will be considerably impaired.

First, place the unit where you plan to install it, and mark the positions of the four screw holes on the surface of the mounting board (not supplied). Then drill the holes approximately 3 mm ($^1/_8$ in.) in diameter and mount the unit onto the board with the supplied mounting screws. The supplied mounting screws are 15 mm ($^{19}/_{32}$ in.) long. Therefore, make sure that the mounting board is thicker than 15 mm ($^{19}/_{32}$ in.).

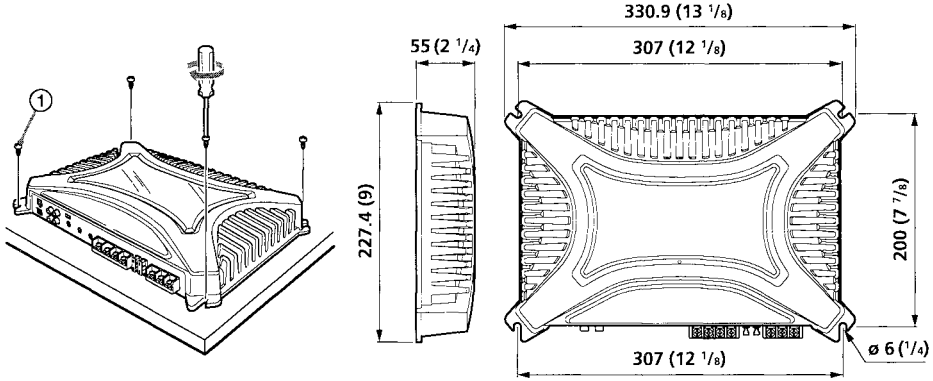
Installation

Avant l'installation

- Installez l'appareil dans le coffre ou sous un siège.
- Choisissez un endroit de montage judicieux pour que l'appareil ne gêne pas les mouvements naturels du conducteur et pour qu'il ne soit pas exposé aux rayons directs du soleil ou à proximité d'une bouche d'air chaud.
- N'installez pas l'appareil sous le tapis, car cela empêcherait l'évacuation de la chaleur de l'appareil.

Tout d'abord, mettez l'appareil où vous prévoyez de l'installer et repérez les quatre trous de vis sur la surface de la plaque de montage (non fournie). Percez ensuite les trous selon un diamètre d'environ 3 mm ($^1/_8$ po) et installez l'appareil sur la plaque avec les vis de montage fournies. Les vis de montage fournies font 15 mm ($^{19}/_{32}$ po) de long. Par conséquent, assurez-vous que la plaque de montage fait plus de 15 mm ($^{19}/_{32}$ po) d'épaisseur.

Unit: mm (in.)
Unité : mm (po)



Connections

Caution

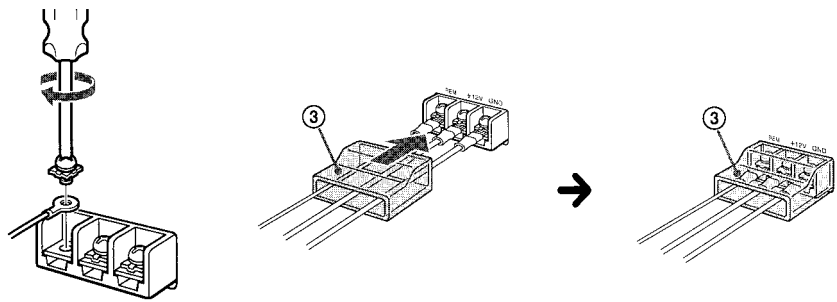
- Before making any connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Be sure to use speakers with an adequate power rating. If you use small capacity speakers, they may be damaged.
- Do not connect the ⊖ terminal of the speaker system to the car chassis, and do not connect the ⊖ terminal of the right speaker with that of the left speaker.
- Install the input and output cords away from the power supply wire as running them close together can generate some interference noise.
- This unit is a high powered amplifier. Therefore, it may not perform to its full potential if used with the speaker cords supplied with the car.
- If your car is equipped with a computer system for navigation or some other purpose, do not to remove the ground wire from the car battery. If you disconnect the wire, the computer memory may be erased. To avoid short circuits when making connections, disconnect the +12 V power supply wire until all the other wires have been connected.

Connexions

Attention

- Avant d'effectuer les connexions, débranchez la borne de masse de la batterie de voiture pour éviter tout court-circuit.
- Veillez à utiliser des haut-parleurs de puissance adéquate. Si vous utilisez des haut-parleurs de faible capacité, ils risquent d'être endommagés.
- Ne raccordez pas la borne ⊖ du système de haut-parleurs à la carrosserie de la voiture ni la borne ⊖ du haut-parleur droit avec celle du haut-parleur gauche.
- Eloignez les câbles d'entrée et de sortie du câble d'alimentation pour éviter les interférences.
- Cet appareil est un amplificateur de haute puissance. Il ne peut donc déployer sa pleine puissance que si les câbles de haut-parleurs de la voiture lui sont raccordés.
- Si votre voiture est équipée d'un système de navigation ou d'un ordinateur de bord, ne retirez pas le fil de terre de la batterie de la voiture, sinon les données mémorisées seront effacées. Pour éviter un court-circuit lorsque vous effectuez les branchements, branchez le câble d'alimentation +12 V après avoir branché tous les autres fils.

Make the terminal connections as illustrated below.
Procédez aux connexions des bornes comme illustré ci-dessous.



Pass the wires through the cap, connect the wires, then cover the terminals with the cap.

Note

When you tighten the screw, be careful not to apply too much torque as doing so may damage the screw.*

** The torque value should be less than 1 N•m.*

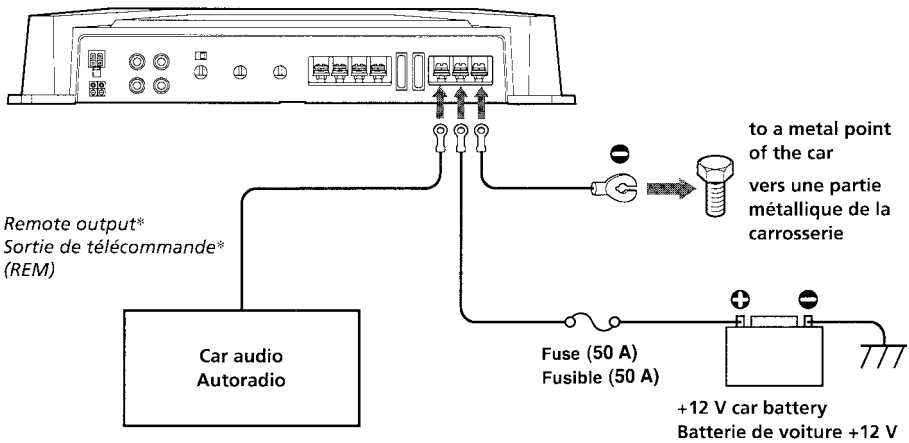
Faites passer les fils par le cache, raccordez les fils, puis recouvrez les bornes avec le cache.

Remarque

Lorsque vous vissez la vis, faites attention à ne pas appliquer une trop grande force, car cela pourrait endommager la vis.*

** Le couple de torsion doit être inférieur à 1 N•m.*

Power Connection Wires
Câbles d'alimentation



* *If you have the factory original or some other car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*

* *Si vous disposez du modèle d'origine ou d'un autre autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de télécommande (REMOTE) à la prise d'alimentation accessoires.*

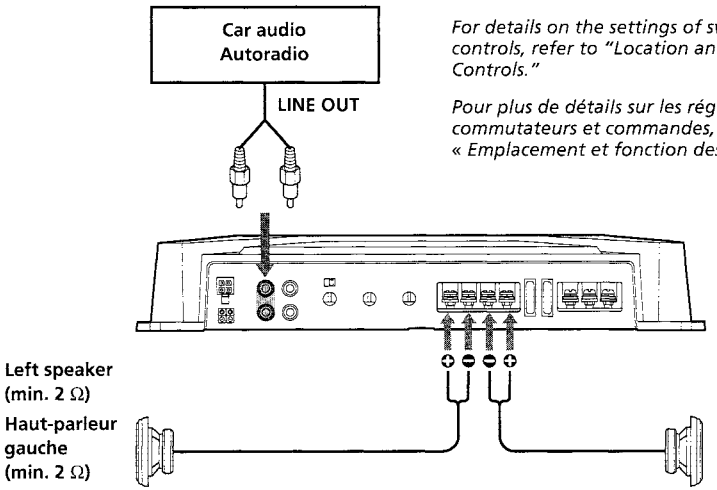
Notes on the power supply

- *Connect the +12 V power supply wire only after all the other wires have been connected.*
- ***Be sure to connect the ground wire of the unit securely to a metal point of the car. A loose connection may cause a malfunction of the amplifier.***
- *Be sure to connect the remote control wire of the car audio to the remote terminal.*
- *When using a car audio without a remote output on the amplifier, connect the remote input terminal (REMOTE) to the accessory power supply.*
- *Use the power supply wire with a fuse attached (50 A).*
- *Place the fuse in the power supply wire as close as possible to the car battery.*
- *Make sure that the wires to be connected to the **+12 V** and **GND** terminals of this unit are at least 10-Gauge (AWG-10) or have a sectional area of more than 5.5 mm².*

Remarques sur l'alimentation électrique

- *Raccordez le câble d'alimentation +12 V uniquement après avoir réalisé toutes les autres connexions.*
- ***Raccordez correctement le fil de masse à une partie métallique de la voiture. Une connexion lâche peut provoquer un dysfonctionnement de l'amplificateur.***
- *Veillez à raccorder le fil de télécommande de l'autoradio à la borne de télécommande.*
- *Si vous utilisez un autoradio dont l'amplificateur ne comporte pas de sortie de télécommande, raccordez la borne d'entrée de la télécommande (REMOTE) à la prise d'alimentation accessoires.*
- *Utilisez un câble d'alimentation muni d'un fusible (50 A).*
- *Fixez le câble d'alimentation le plus près possible de la batterie de voiture.*
- *Assurez-vous que les câbles à raccorder aux bornes **+12V** et **GND** de cet appareil sont d'un calibre d'au moins 10 (AWG-10) ou d'une section supérieure à 5,5 mm².*

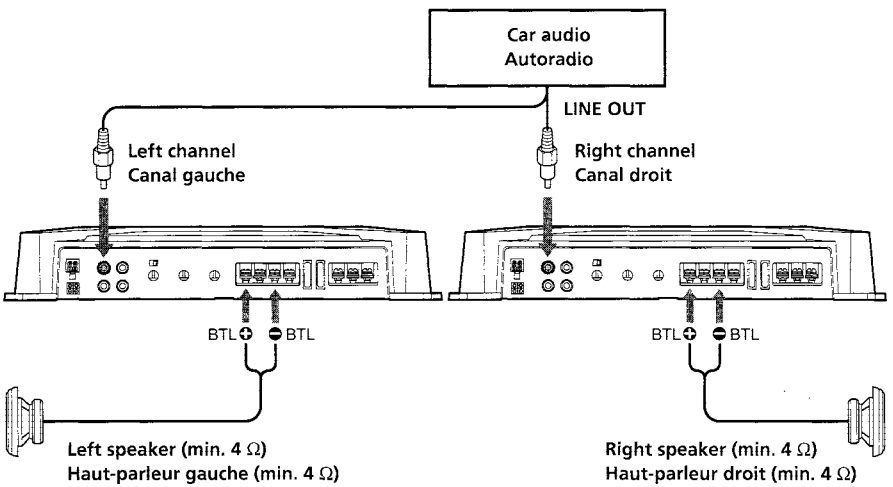
2-Speaker System
Système à 2 haut-parleurs



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

As a Monaural Amplifier
Comme amplificateur monaural



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

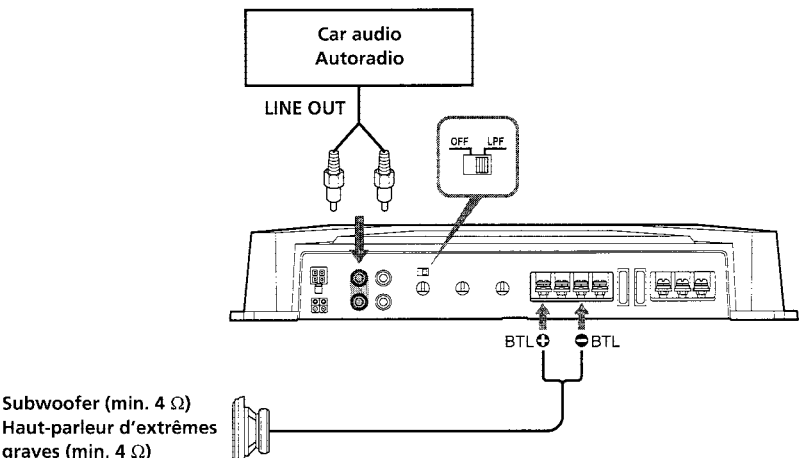
Make sure that the line output from the car audio is connected to the jack marked "L (BTL)" on the unit.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

Remarque

Vérifiez que la sortie de ligne de l'autoradio est raccordée à la prise portant l'indication « L (BTL) » sur l'appareil.

As the Monaural Amplifier for a Subwoofer
Comme amplificateur monaural pour un haut-parleur d'extrêmes graves



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of the both right and left output signals.

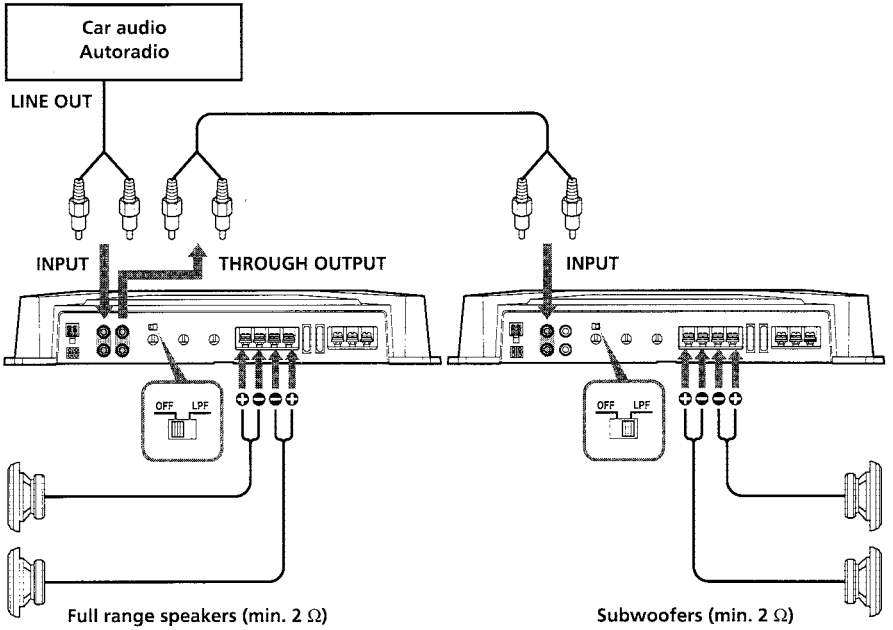
Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

Remarque

Si vous désirez utiliser un haut-parleur d'extrêmes graves comme haut-parleur monaural, raccordez le haut-parleur comme illustré ci-dessus. Les signaux de sortie vers le haut-parleur d'extrêmes graves seront une combinaison des signaux de sortie droit et gauche.

2-way System
Système 2 voies

Two output channels
Deux canaux de sortie



Use the THROUGH OUTPUT terminal when you install more amplifiers. The signals are output as they were input. (LOW BOOST, LPF do not work.)

Notes

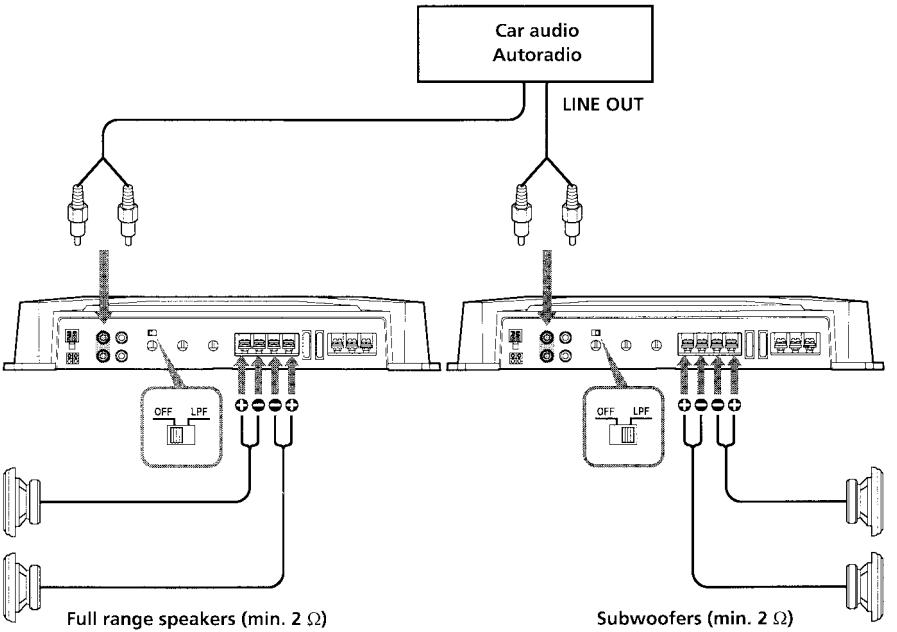
- *A maximum 3 amplifiers can be connected to the THROUGH OUTPUT terminal. If you connect more than three amplifiers, it may cause problems such as sound dropout.*
- *High level input connection cannot use THROUGH OUTPUT.*

Utilisez la borne THROUGH OUTPUT lorsque vous installez plusieurs amplificateurs. Les signaux sont sortis comme ils sont entrés. (LOW BOOST, LPF ne fonctionnent pas.)

Remarques

- *Vous pouvez raccorder un maximum de 3 amplificateurs à la borne THROUGH OUTPUT. Si vous raccordez plus de trois amplificateurs, cela peut provoquer des problèmes comme des baisses du son.*
- *Avec une connexion d'entrée de haut niveau, vous ne pouvez pas utiliser THROUGH OUTPUT.*

Four output channels
Quatre canaux de sortie



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

In this system, the volume of the subwoofers will be controlled by the car audio fader control.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

Remarque

Dans ce système, le volume des haut-parleurs d'extrêmes graves est contrôlé par la commande de balance avant/arrière de l'autoradio.

Dual Mode System (With a Bridged Subwoofer)
Double mode de connexion
(avec un haut-parleur d'extrêmes graves en pont)

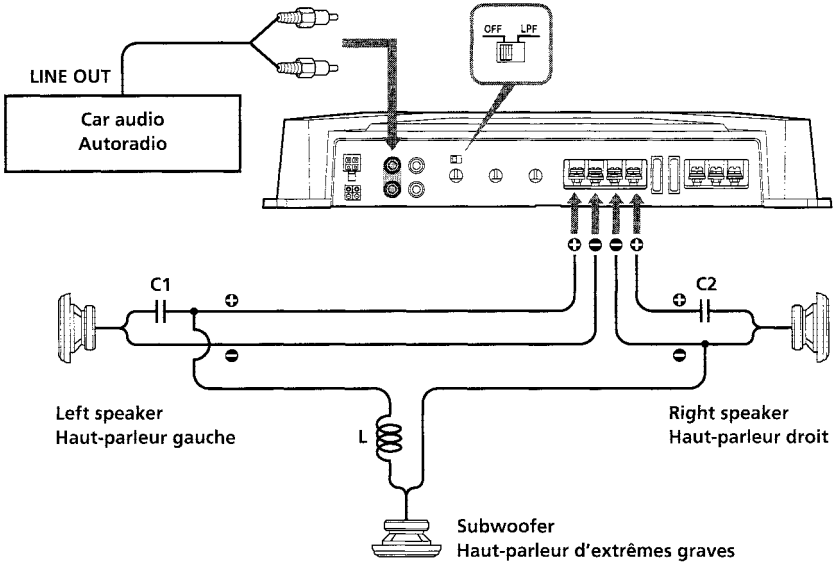


Table of crossover values for 6 dB/ octave (4 Ω)

Crossover Frequency unit: Hz	L (coil)* unit: mH	C1/C2 (capacitor)* unit: µF
50	12.7	800
80	8.2	500
100	6.2	400
130	4.7	300
150	4.2	270
200	3.3	200
260	2.4	150
400	1.6	100
600	1.0	68
800	0.8	50
1000	0.6	39

* (not supplied)

Tableau des valeurs de recoupement pour 6 dB/octave (4 Ω)

Fréquence de recoupement unité : Hz	L (bobine)* unité : mH	C1/C2 (condensateur)* unité : µF
50	12,7	800
80	8,2	500
100	6,2	400
130	4,7	300
150	4,2	270
200	3,3	200
260	2,4	150
400	1,6	100
600	1,0	68
800	0,8	50
1000	0,6	39

* (non fournis)

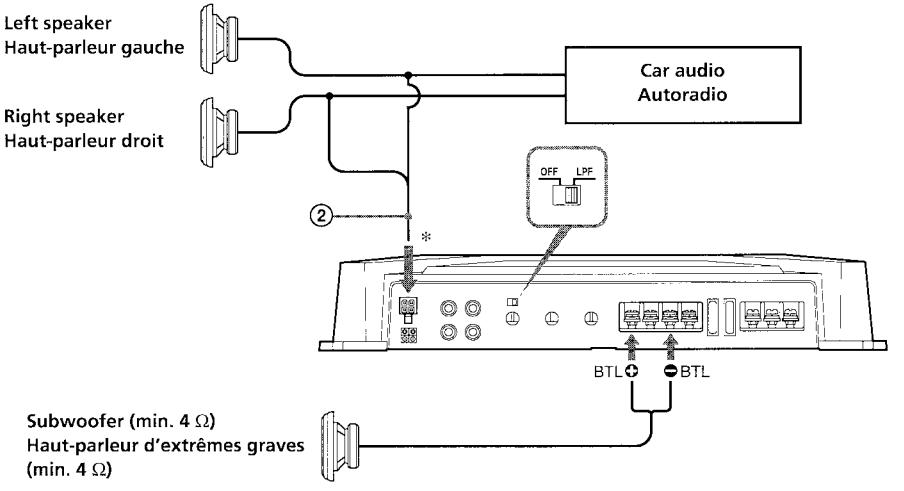
Notes

- *When using passive crossover networks in a multi-speaker system, care must be taken as the speaker system's impedance should not be lower than that of the suitable impedance for this unit.*
- *When you are installing a 12 decibels/octave system in your car, the following points must be considered. In a 12 decibels/octave system where both a choke and capacitor are used in series to form a circuit, a great care must be taken when they are connected. In such a circuit, there is going to be an increase in the current which by-passes the speaker with frequencies at around the crossover frequency. If audio signals are continued to be fed into the crossover frequency area, it may cause the amplifier to become abnormally hot or the fuse will be blown. Also if the speaker is disconnected, a series-resonant circuit will be formed by the choke and the capacitor. In this case, the impedance in the resonance area will decrease dramatically resulting in a short circuit like situation causing a damage to the amplifier. Therefore, make sure that a speaker is connected to such a circuit at all times.*

Remarques

- *Lorsque vous utilisez des circuits de recoupement de fréquence passifs dans un système à plusieurs haut-parleurs, assurez-vous que l'impédance du système n'est pas inférieure à celle prévue pour cet appareil.*
- *Lorsque vous installez un système à 12 décibels/octave dans votre voiture, vous devez respecter les points suivants. Dans un système à 12 décibels/octave où la bobine d'arrêt et le condensateur sont utilisés en série pour former un circuit, vous devez réaliser les branchements avec beaucoup de précaution. Dans ce type de circuit, une augmentation du courant contournant le haut-parleur se produit dans les fréquences se situant autour de la fréquence de coupure. Si des signaux audio continuent d'être fournis dans la zone de la fréquence de recoupement, une surchauffe risque de se produire dans l'amplificateur et le fusible risque de griller. Si le haut-parleur n'est pas raccordé, un circuit de résonance série sera créé par la bobine et le condensateur. Dans ce cas, l'impédance dans la zone de résonance sera considérablement réduite, et comme dans le cas d'un court-circuit, l'amplificateur peut être endommagé. Par conséquent, veillez à ce qu'un haut-parleur soit toujours raccordé au circuit.*

High Level Input Connection
(As a Monaural Amplifier for a Subwoofer)
Connexion d'entrée à haut niveau
(Comme amplificateur monaural pour un haut-parleur d'extrêmes graves)



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Note

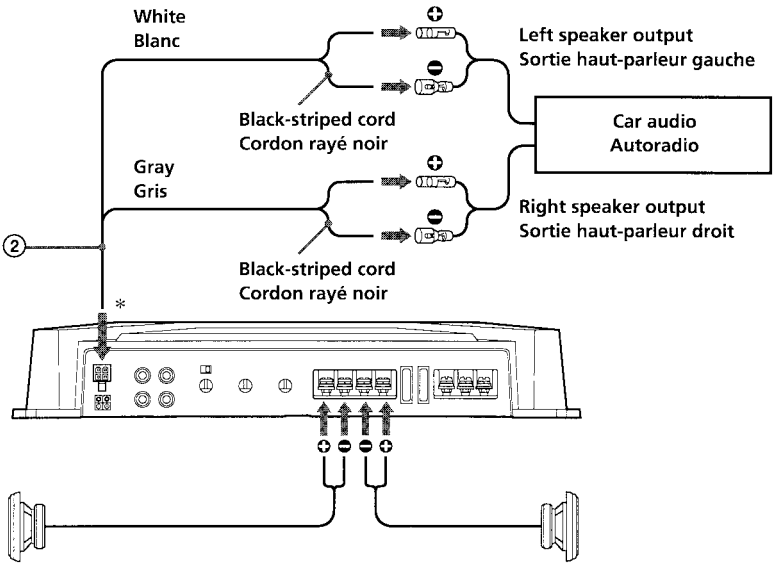
If you wish to use a subwoofer as a monaural speaker, connect the speaker as illustrated above. The output signals to the subwoofer will be the combination of both the right and left output signals.

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

Remarque

Si vous désirez utiliser un haut-parleur d'extrêmes graves comme haut-parleur monaural, raccordez le haut-parleur comme illustré ci-dessus. Les signaux de sortie vers le haut-parleur d'extrêmes graves seront une combinaison des signaux de sortie droit et gauche.

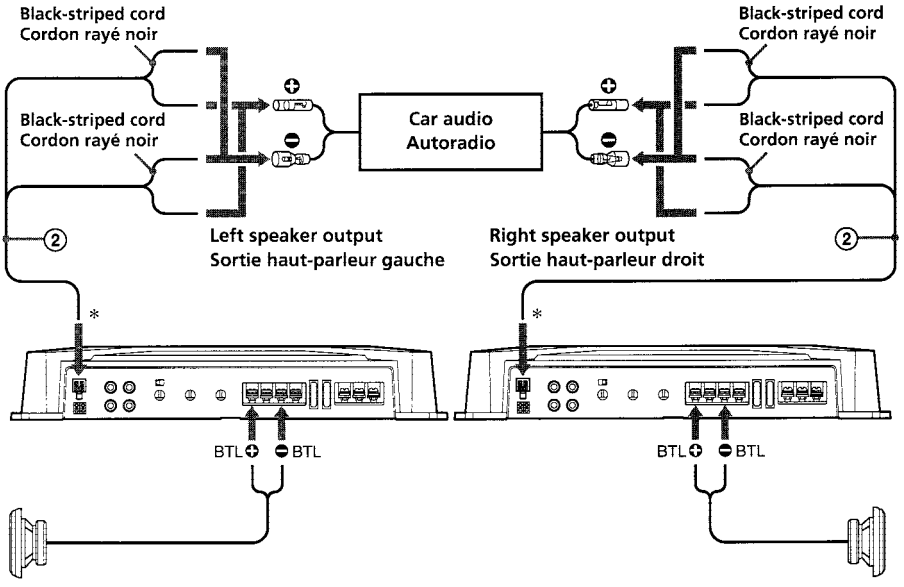
High Level Input Connection (2-Speaker System)
Connexion d'entrée à haut niveau (Système à 2 haut-parleurs)



For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

High Level Input Connection (As a Monaural Amplifier)
Connexion d'entrée à haut niveau
(Comme amplificateur monaural)



Left speaker (min. 4 Ω)
Haut-parleur gauche (min. 4 Ω)

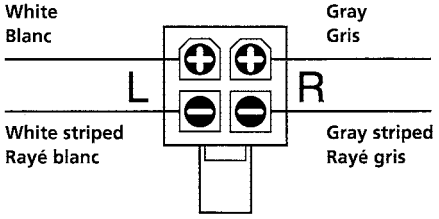
Right speaker (min. 4 Ω)
Haut-parleur droit (min. 4 Ω)

For details on the settings of switches and controls, refer to "Location and Function of Controls."

Pour plus de détails sur les réglages des commutateurs et commandes, reportez-vous à « Emplacement et fonction des commandes ».

* **High Level Input Connector**

* **Connecteur d'entrée à haut niveau**



Precaution

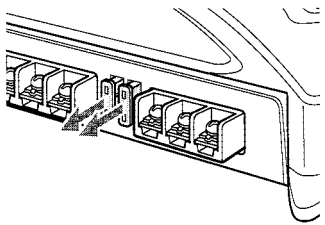
- This unit is designed for negative ground 12 V DC operation only.
- Use speakers with suitable impedance.
  — 2 – 8 Ω (stereo), 4 – 8 Ω (when used as a bridging amplifier).
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the amplifier and active speakers.
- Avoid installing the unit in areas subject to:
  — high temperatures such as from direct sunlight or hot air from the heater
  — rain or moisture
  — dust or dirt
- If your car is parked in direct sunlight and there is a considerable rise in temperature inside the car, allow the unit to cool down before use.
- When installing the unit horizontally, be sure not to cover the fins with the floor carpet etc.
- If this unit is placed too close to the car radio or antenna, interference may occur. In this case, relocate the amplifier away from the car radio or antenna.
- If no power is being supplied to the master unit, check the connections.
- This power amplifier employs a protection circuit* to protect the transistors and speakers if the amplifier malfunctions. Do not attempt to test the protection circuits by covering the heat sink or connecting improper loads.
- Do not use the unit on a weak battery as its optimum performance depends on a good power supply.
- For safety reasons, keep your car audio volume moderate so that you can still hear sounds outside your car.

Fuse Replacement

If the fuse blows, check the power connection and replace both the fuses. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.

Warning

When replacing the fuse, be sure to use one matching the amperage stated above the fuse holder. Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.



* ***Protection circuit***
This amplifier is provided with a protection circuit that operates in the following cases:
— when the unit is overheated
— when a DC current is generated
— when the speaker terminals are short-circuited
The POWER/PROTECTOR indicator lights up in red and the unit will shut down.
If this happens, turn off the connected equipment, take out the cassette tape or disc, and determine the cause of the malfunction. If the amplifier has overheated, wait until the unit cools down before use.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

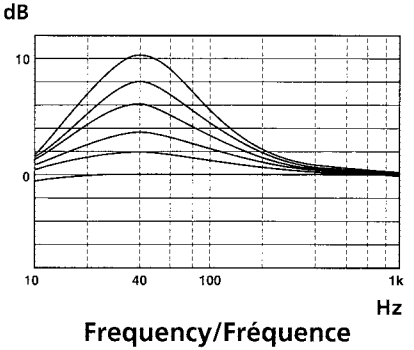
Troubleshooting Guide

The following checklist will assist in the correction of most problems which you may encounter with your unit.

Before going through the checklist below, refer to the connection and operating procedures.

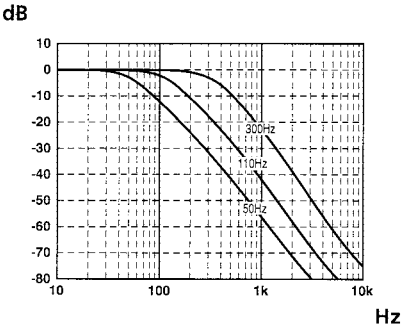
Problem	Cause/Solution
The POWER/PROTECTOR indicator does not light up.	The fuse is blown. → Replace both the fuses with a new one.
	The ground wire is not securely connected. → Fasten the ground wire securely to a metal point of the car.
	The voltage going into the remote terminal is too low. • The connected master unit is not turned on. → Turn on the master unit. • The system employs too many amplifiers. → Use a relay.
	Check the battery voltage (10.5 – 16 V).
• The POWER/PROTECTOR indicator will change from green to red. **• The unit becomes abnormally hot.**	Turn off the power switch. The speaker outputs are short-circuited. → Rectify the cause of the short-circuit. • Use speakers with suitable impedance. → 2 – 8 Ω (stereo) , 4 – 8 Ω (when used as a bridging amplifier).
	Turn off the power switch. Make sure the speaker cord and ground wire are securely connected.
	The unit heats up abnormally. • Make sure to place the unit in a well ventilated location.
Alternator noise is heard.	The power connecting wires are installed too close to the RCA pin cords. → Keep the power connecting wires away from the RCA pin cords.
	The ground wire is not securely connected. → Fasten the ground wire securely to a metal point of the car.
	Negative speaker cords are touching the car chassis. → Keep the cords away from the car chassis.
The sound is muffled.	The FILTER switch is set to the "LPF" position. → When connecting the full range speaker, set to the "OFF" position.
The sound is too low.	The LEVEL adjustment control is not appropriate. Turn the LEVEL adjustment control in the clockwise direction.
The sound is interrupted.	The thermal protector is activated. → Reduce the volume.

Low boost
Amplification de basses fréquences



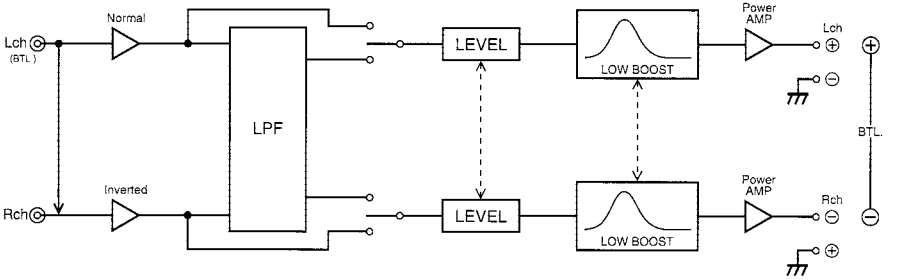
Frequency/Fréquence

Cut-off frequency (LPF)
Fréquence de coupure (LPF)



Frequency/Fréquence

Circuit Diagram
Schéma du circuit



Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
100 watts per channel minimum continuous average power into 4 ohms, both channels driven from 20 Hz to 20 kHz with no more than 0.04 % total harmonic distortion per Car Audio Ad Hoc Committee standards.

Other Specifications

Circuit system: OTL (output transformerless) circuit
Pulse power supply

Inputs: RCA pin jacks
High level input connector

Outputs: Speaker terminals
Through output pin jacks

Suitable speaker impedance
2 – 8 Ω (stereo)
4 – 8 Ω (when used as a bridging amplifier)

Maximum outputs: 200 W × 2 (at 4 Ω)
300 W × 2 (at 2 Ω)
600 W (monaural) at 4 Ω

Rated outputs (supply voltage at 14.4 V)
100 W × 2 (20 Hz – 20 kHz, 0.04 % THD, at 4 Ω)
125 W × 2 (20 Hz – 20 kHz, 0.1 % THD, at 2 Ω)
250 W (monaural) (20 Hz – 20 kHz, 0.1 % THD, at 4 Ω)

Frequency response
5 Hz – 50 kHz ($^{+0}_{-3}$ dB)

Harmonic distortion
0.008 % or less (at 1 kHz, 4 Ω)

Input level adjustment range
0.3 – 6.0 V (RCA pin jacks)
1.2 – 12.0 V (High level input)

Low-pass filter: 50 – 300 Hz, –12 dB/oct

Low boost: 0 – 10 dB (40 Hz)

Power requirements
12 V DC car battery (negative ground)

Power supply voltage
10.5 – 16 V

Current drain: at rated output: 25 A (at 4 Ω)
Remote input: 1 mA

Dimensions: Approx. 307 × 55 × 200 mm ($12\,^1/_8 \times 2\,^1/_4 \times 7\,^7/_8$ in.) (w/h/d) not incl. projecting parts and controls

Mass: Approx. 2.7 kg (6 lb.) not incl. accessories

Supplied accessories
Mounting screws (4)
High level input cord (1)
Protection cap (1)

Design and specifications are subject to change without notice.

Features

- Maximum power output of 200 W per channel (at 4 Ω).
- This unit can be used as a bridging amplifier with a maximum output of 600 W .
- Direct connection can be made with the speaker output of your car audio if it is not equipped with a line output (High level input connection).
- Built-in variable LPF (Low-pass filter) and low boost circuit.
- Dual mode connection possible for a multi-speaker system.
- Protection circuit.
- Pulse power supply* for stable, regulated output power.

* ***Pulse power supply***
This unit has a built-in power regulator which converts the power supplied by the DC 12 V car battery into high speed pulses using a semiconductor switch. These pulses are stepped up by the built-in pulse transformer and separated into both positive and negative power supplies before being converted into direct current again. This light weight power supply system provides a highly efficient power supply with a low impedance output.

Caractéristiques

- Puissance de sortie maximale de 200 W par canal (à 4 Ω).
- Cet appareil peut être utilisé comme amplificateur en pont d'une sortie maximale de 600 W.
- Une connexion directe est possible avec la sortie haut-parleur de votre autoradio si celle-ci n'est pas équipée d'une sortie de ligne (connexion d'entrée haut niveau).
- Filtre passe-bas (LPF) intégré et circuit à faible amplification.
- Double mode de connexion possible au moyen d'un système à plusieurs haut-parleurs.
- Circuit de protection.
- Alimentation électrique par impulsions* pour une puissance de sortie stable, régulée.

* ***Alimentation électrique par impulsions***
Cet appareil est équipé d'un régulateur de puissance intégré qui convertit la puissance fournie par une batterie de voiture de 12 V CC en impulsions ultra-rapides au moyen d'un commutateur à semi-conducteur. Ces impulsions sont amplifiées par le transformateur d'impulsions intégré et séparées en alimentation positive et négative avant d'être reconverties en courant continu. Ce système d'alimentation de faible poids assure une alimentation électrique très efficace pour une sortie d'impédance faible.

Location and Function of Controls

[1] **POWER/PROTECTOR indicator**
Lights up in green during operation. When the PROTECTOR is activated the indicator will change from green to red. When the PROTECTOR is activated refer to the Troubleshooting Guide.

[2] **FILTER selector switch**
When the switch is in the LPF position, the filter is set to low-pass.

[3] **Cut-off frequency adjustment control**
Sets the cut-off frequency (50 – 300 Hz) for the low-pass filter.

[4] **LEVEL adjustment control**
The input level can be adjusted with this control. Turn it in the clockwise direction when the output level of the car audio seems low.

[5] **LOW BOOST level control**
Turn this control to boost the frequencies around 40 Hz to a maximum of 10 dB.

Emplacement et fonction des commandes

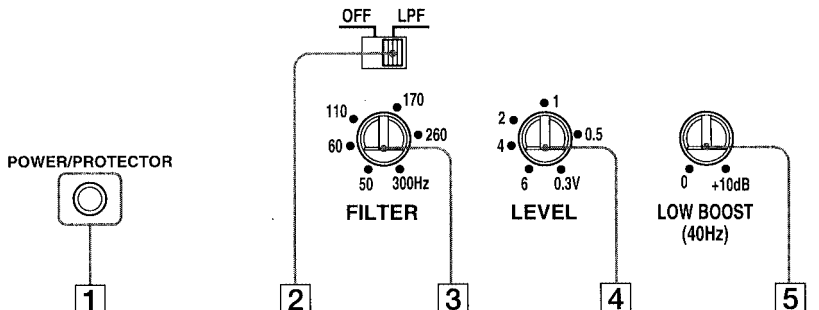
[1] **Indicateur POWER/PROTECTOR**
S'allume en vert en cours de fonctionnement.
Lorsque PROTECTOR est activé, le voyant passe du vert au rouge.
Lorsque PROTECTOR est activé, reportez-vous au guide de dépannage.

[2] **Commutateur de sélection FILTER**
Lorsque le commutateur de sélection est en position LPF, le filtre est réglé sur passe-bas.

[3] **Commandes de réglage de la fréquence de coupure**
Permet de régler la fréquence de coupure (50 – 300 Hz) pour le filtre passe-bas.

[4] **Commande de réglage LEVEL**
Le niveau d'entrée peut se régler avec cette commande. Tournez cette commande dans le sens des aiguilles d'une montre lorsque le niveau de sortie de l'autoradio semble faible.

[5] **Commande de niveau LOW BOOST**
Tournez cette commande pour amplifier les fréquences autour de 40 Hz jusqu'à un maximum de 10 dB.


POWER/PROTECTOR
1
OFF
LPF
2
110
170
60
260
50
300Hz
FILTER
3
1
2
0.5
4
6
0.3V
LEVEL
4
0
+10dB
LOW BOOST
(40Hz)
5

SONY®

Car Audio

LIMITED WARRANTY

Sony Electronics Inc. ("Sony") warrants this Product (including any accessories) against defects in material or workmanship as follows:

1. LABOR: For a period of one (1) year from the date of purchase, if this Product is determined to be defective, Sony will repair or replace the Product, at its option, at no charge, or pay the labor charges to any Sony authorized service facility. After the Warranty Period, you must pay for all labor charges.

2. PARTS: In addition, Sony will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year. After the warranty period, you must pay for all parts costs.

3. ACCESSORIES: Parts and labor for all accessories are for one (1) year.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in either its original packaging or packaging affording an equal degree of protection, to any authorized Sony service facility.

This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product, including the antenna. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a facility authorized by Sony to service the Product. This warranty does not cover Products sold AS IS or WITH ALL FAULTS, or consumables (such as fuses or batteries). This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

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1-800-222-7669
or visit the Sony Web Site:
www.sony.com

For an accessory or part not available from your authorized dealer, call:

1-800-488-SONY (7669)

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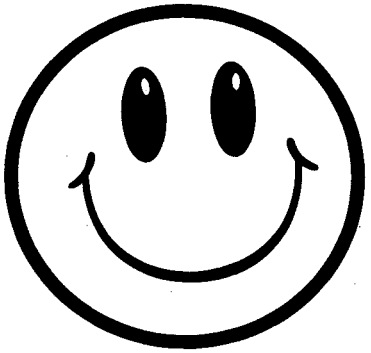
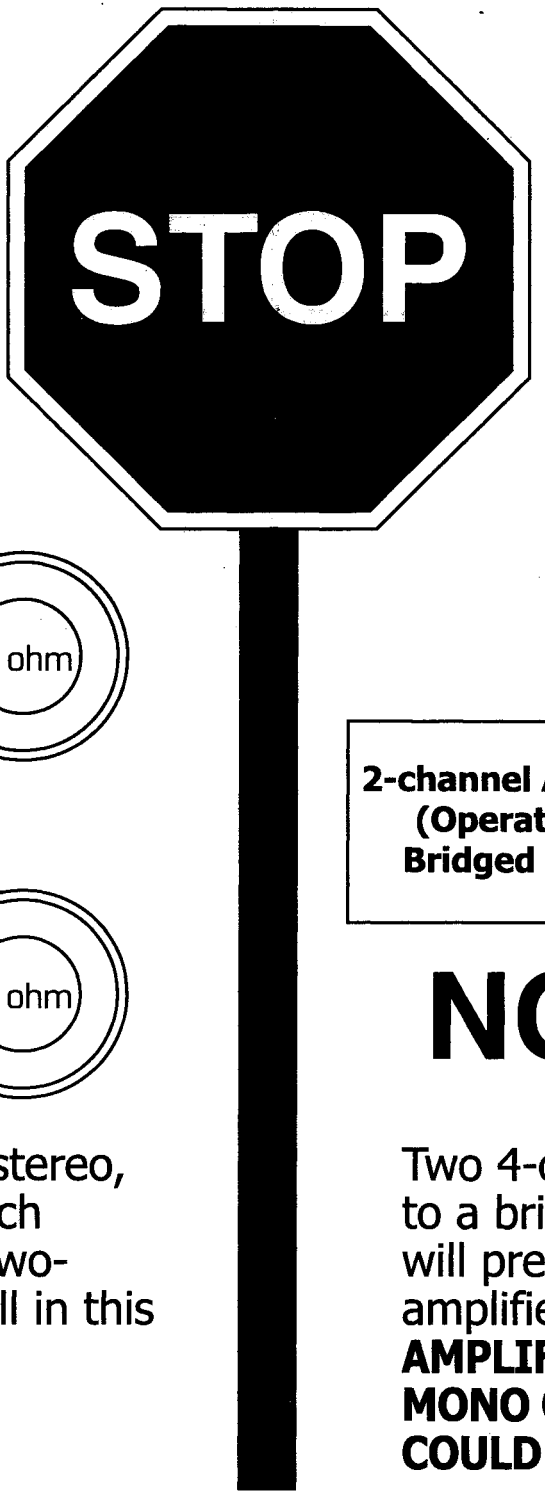
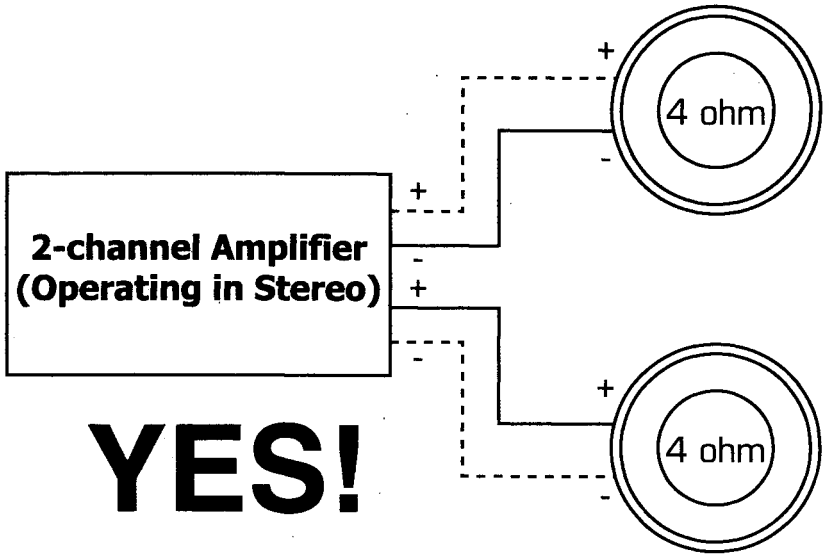
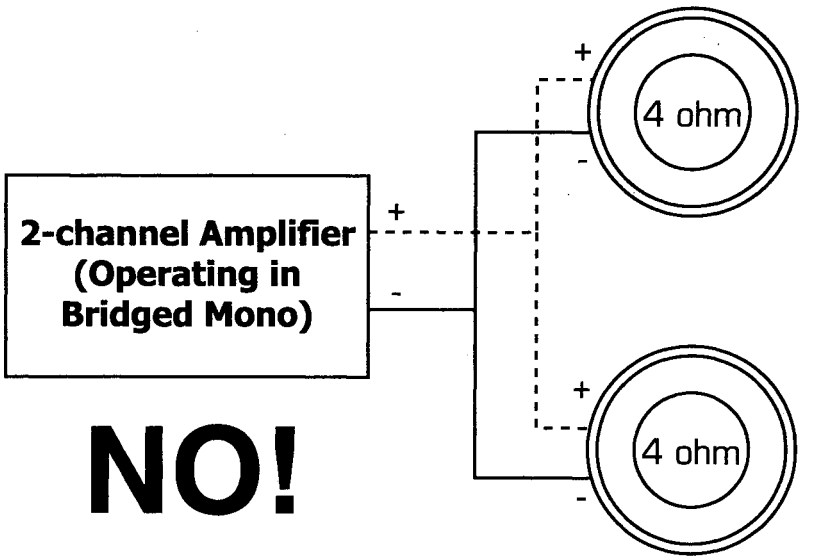






YES!

Two 4-ohm speakers, wired in stereo, will present a 4 ohm load to each channel of the amplifier. Most two-channel amplifiers will work well in this configuration.



NO!

Two 4-ohm speakers, wired in parallel to a bridged two-channel amplifier, will present a 2-ohm mono load to the amplifier. **MOST TWO-CHANNEL AMPLIFIERS DO NOT SUPPORT 2-OHM MONO OPERATION! AMPLIFIER DAMAGE COULD RESULT!**

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